Further objects are to achieve the above with a product that has a long storage life, is safe, versatile, efficient, stable and reliable, yet is inexpensive and easy to formulate and administer.

The specific nature of the invention, as well as other objects, uses, and advantages thereof, will clearly appear from the following description.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

A nasal spray is formulated having approximately 10% xylitol/xylose in an aqueous solution. The spray is administered by a conventional spray bottle.

As little as 1% xylitol/xylose in solution appears to be the effective minimum strength, the maximum strength is a saturated solution of 64 grams of xylitol/xylose per 100 cc.s of solution.

Mixing in a saline aqueous solution to facilitate one washing effect of the saline, the saline solution should be slightly hypotonic. The preferred saline solution is a 0.65% sodium chloride solution. The saline solution can be in the range from 0.45% sodium salt to 0.95% sodium salt. More than 0.95% sodium salt results in a burning sensation in the nasal passages. Sodium chloride is the preferred salt to make the saline solution although other compatible sodium compounds may be used.

Therefore it may be seen that nasal application of xylitol/xylose in a saline solution loosens the bacterial attachment and washes the nasal cavity.

One formulation is 5 grams of xylitol/xylose mixed with 45 cubic centimeters of "Ocean" nasal spray manufactured by the Fleming Company of Fenton, Mo. the "Ocean" spray contains 0.65% sodium chloride in water with benzalkonium chloride and phenylcarbinol as preservatives.

The recommended dosage for infants under two is a spray in each nostril with each diaper change. This, also, could be expressed by administering two sprays of the solution about seven times a day. Each spray will deliver approximately five (5) milligrams per spray. With two sprays, seven times a day this would be approximately 70 milligrams per day.

An alternate of application is that the xylitol/xylose solution could be administered as drops from a dropper. If the solution were administered by drops, there would be approximately five (5) milligrams per drop, therefore, a recommended dosage by drops would be two drops in each nostril seven times a day would result in about 140 milligrams per day. About 0.1 gram a day is normally sufficient. Basically, an excess amount is not harmful.

Another form of deliver is by swab, such as cotton wound around a small stick. The swab might be dipped into a xylitol/xylose solution as described above. A stronger solution such as a 25% xylitol/xylose solution is desirable. Also, the xylitol/xylose may be mixed in a carrier other than a solution, such as a suitable gel.

This treatment is beneficial for nasal congestion. Usage as described results in a reduction of the population of resident pathogenic strep pneumonia and other bacteria with similar reduction in infections and inflammatory problems associated with these bacteria. This usage will result in a reduced incident of ear infections. Also, the dosage is recommended to lessen the frequency and severity of recurrent sinus infections.

Also, use of xylitol/xylose, as described above, in combination with a first line antibiotic is usually sufficient for treatment of most upper respiratory conditions where strep pneumonia is the agent involved with the infection.

The embodiment shown and described above is only exemplary. I do not claim to have invented all the parts, elements or steps described. Various modifications can be made in the construction, material, arrangement, and operation, and still be within the scope of my invention. For example, the treatment is beneficial to many people over two years of age.

The restrictive description of the specific examples above do not point out what an infringement of this patent would be, but are to point out the advantages and the progressive contribution to the healing arts and to enable one skilled in the art to make and use the invention. The limits of the invention and the bounds of the patent protection are measured by and defined in the following claims.

I claim as my invention:

1. An aqueous solution for nasal use comprising by weight 100 parts of water, between 65 parts to 1 part of xylitol/xylose, and between 0.95 and 0.45 parts of sodium chloride.

2. The solution as defined in claim **1** with the addition of effective amounts of benzalkonium chloride and phenylcarbinol as preservatives.

3. The solution as defined in claim **2** comprising: 100 parts of water, 10 parts of xylitol/xylose, and 0.65 parts of sodium chloride.

4. The solution as defined in claim **1** wherein the solution is hypotonic and further comprising 100 parts of water, 10 parts of xylitol/xylose, 0.65 parts of sodium chloride and effective amounts of benzalkonium chloride and phenylcarbinol as preservatives.

5. An aqueous solution for nasal use comprising by weight 100 parts of water and between 65 parts to 1 part of xylitol/xylose.

6. The solution as defined in claim **5** with the addition of effective amounts of benzalkonium chloride and phenylcarbinol as preservatives.

7. The solution as defined in claim **6** comprising: 100 parts of water and 10 parts of xylitol/xylose.

8. The solution as defined in claim **5** wherein the solution is hypotonic and further comprising 100 parts of water, 10 parts of xylitol/xylose, and effective amounts of benzalkonium chloride and phenylcarbinol as preservatives.

9. A nasal spray comprising by weight 100 parts of water, between one part and 65 parts of xylitol/xylose, and between 0.45 and 0.95 parts of sodium chloride in a conventional spray bottle.

10. The product as defined in claim **9** wherein said solution is hypotonic and further comprising 100 parts of water 10 parts of xylitol/xylose, and 0.65 parts of sodium chloride and effective amounts of benzalkonium chloride and phenylcarbinol as preservatives.

11. A preparation for nasal use comprising an effective amount of xylitol/xylose in a suitable gel.

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